Briant A Kimball
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11/28/2007 10:48 AM

To "Kerry Gee" <kcgee@unitedpark.com>

cc "'Longwell, Daryl'" <Daryl.Longwell@tetratech.com>, Kathryn Hernandez/EPR/R8/USEPA/US@EPA, "'Michele Straube'" <mstraube@mindspring.com>

bcc

Subject RE: Lower Silver Creek – FYI and Questions

Kerry,

You are asking an important question. I do not have data on the depth of high metal concentrations, and I don't know who does. If there are no data, you may be pointing out an important gap in our understanding.

Anyway, we can say a few simple things about the ground water from the mass-loading study (which is to the point of a "read through" of the mock up publication). You ask what is going to happen to the water in the tailings. I think there are two physical conditions that we observed.

First, piles of tailings are generally above the flood plain level. Water in those piles would be minimal. We were sampling inflows that represent the discharge of plumes from the piles toward the stream (photos in the report for example). These piles occur in the "Upper meadow piles" (I have attached figure 1 from the report). Scraping piles will leave the plume to discharge for some period of time.

Second, "stratified" tailings are deposited along the course of the stream. We have (I have) no information on how deep a plume caused by those tailings may be. Drainage from the stratified tailings reaches the stream, particularly near the Promontory Point road and downstream from there, in the area of the "lower meadow." Obviously any water in those tailings would be removed if the stratified tailings are moved and that would change the hydrology and discharge to the stream. If circulation is shallow this could improve the situation. I certainly think we would want to know the 3D picture of high metal concentrations before proceeding with a very expensive option of removing the tailings.

I don't know if this helps, but if you have other questions that might make me think some more about what we know, fire away.

Briant

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"Kerry Gee" <kcgee@unitedpark.com>

11/27/2007 09:27

To <Hernandez.Kathryn@epamail.epa.gov>, "'Longwell, Daryl'" <Daryl.Longwell@tetratech.com>

cc "'Michele Straube'" <mstraube@mindspring.com>, "'Briant Kimball'" <bkimball@usgs.gov>

Subje RE: Lower Silver Creek -- FYI and Questions
ct

Kathy:

I have the CD that Brianna sent me a while ago and I have all that has been handed out at the meetings. Is there more information regarding the distribution of the tailings or written information regarding the distribution of the tailings? Have the data from the recent sampling or boring efforts been put in to a written form that I could possibly get?

Has any information been collected on the groundwater aquifer that may exist below the tailings in the floodplain? We should have Briant Kimball give us his thoughts on what is going to happen to the water that is in the tailings once they are removed. Sorry to put you on the spot like this Briant!

If you look at the cross section in the presentation you can see that the pre-tailings groundwater surface and the "in tailings" water surface are being represented as a contiguous surface. The borings are indicated to go below the tailings into the original ground so the data must support this representation.

At Richardson Flat, we did the piezometers and found that there are two aquifers. One in the tailings and one below the tailings. The clay soils act as a barrier.

It's probably safe to say that the groundwater surface will differ once the tailings are removed. This may also change the way the wetlands will look after removal. It could possibly result in less wetland areas and more upland areas. The existence of the tailings may have raised the water table creating wetlands where none previously existed or where it may be challenging to get them to regenerate post removal. However, changing flow patterns in the surface channels can also create wetlands where none previously existed.

Kerry

-----Original Message-----
From: Hernandez.Kathryn@epamail.epa.gov
[mailto:Hernandez.Kathryn@epamail.epa.gov]
Sent: Monday, November 26, 2007 4:20 PM
To: Longwell, Daryl; kcgee@unitedpark.com
Cc: Michele Straube
Subject: RE: Lower Silver Creek -- FYI and Questions

How much clean fill do you think we will need if we excavate the 1.5 mill?

Kathryn Hernandez
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"Longwell, Daryl" <Daryl.Longwell@tetratech.com>

11/26/2007 04:14 PM

To: "Michele Straube" <mstraube@mindspring.com>

cc: Kathryn Hernandez/EPR/R8/USEPA/US@EPA

Subject: RE: Lower Silver Creek -- FYI and Questions

Michelle - Thanks for the property info. Looks like SS-27-B-1 is outside the study area. Is the "soils study" submitted with the plat for SS-27 and SS-28 intended to meet the requirements of the County's planned ordinance?

I will touch base with Kathy on the other statements and get you a response.

Also, in response to your previous email (11/17/07) following the incentives meeting we have: 1) sent another hard copy of the property ownership map to you today; 2) sent the digital version of the orange study area boundary to Nora; and 3) posted a pdf version of the property ownership poster to the ftp site.

Regards, Daryl

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From: Michele Straube [mailto:mstraube@mindspring.com]
Sent: Monday, November 26, 2007 3:26 PM
To: Longwell, Daryl
Cc: Kathy Hernandez
Subject: Lower Silver Creek -- FYI and Questions

Daryl: I'm going through my notes from the "incentives" meeting a week or so ago and found the following info from Jami Brackin (Deputy Summit County Attorney):

Plat SS-27-B-1 (Silver Gate Ranches, Walt Plum), now subdivided, used to be heavily irrigated

Plats SS-27 and SS-28 (Phase II) -- a soils study was submitted with the plat notice, but probably only for the highest ground

Questions: Are these statements accurate (for purposes of the meeting summary)?

Estimated volume of clean fill that might be needed in LSC: 1 million yards

Estimate of volume of contaminated materials that may need to be disposed in a repository: 1.5 million yards

Estimated minimum size of repository: 60 acres

Thanks. Mich.

Michele Straube, Mediator/Facilitator
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